

Historic, archived document

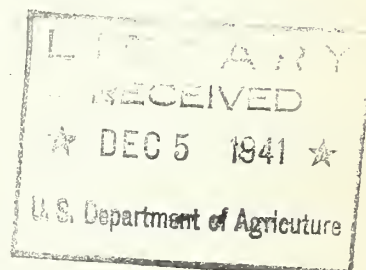
Do not assume content reflects current scientific knowledge, policies, or practices.

1.932
H2A98
no. 58

ACE--58

A PROGRAM FOR REHABILITATING FARM BUILDINGS

Prepared by Wallace Ashby, Chief, Farm Structures
Research Division, Bureau of Agricultural Chemistry
and Engineering, and F. J. Hallauer, Principal
Engineer, Forest Service



UNITED STATES DEPARTMENT OF AGRICULTURE

August 1940

A PROGRAM FOR REHABILITATING FARM BUILDINGS

Introduction

A great many farmers whose houses, barns and outbuildings are so deteriorated and obsolete that they are not suited for right living or efficient care of livestock or stored crops. This is a serious problem calling for action. But a program for rehabilitating farm buildings should recognize this as part of a more general farm problem and not just a construction problem, or as related to problems of inadequate cash income, new demands on cash income, idle time, disappearance of skills in building arts on the farm. A problem could be planned to stimulate use of farm resources, including time not needed for farm operations and inexpensively available materials, such as stone, gravel, logs, home-sawed lumber, adobe and the salvage from old buildings. Such activity would also stimulate the employment of skilled men and the sale of commercial products. To the extent that improvements were made with otherwise unemployed farm time and with farm materials, the increased usefulness and value of the buildings would not entail a corresponding increase in investment.

Need for Farm Building Improvements

For more than ten years upkeep of farm buildings has lagged behind depreciation. The great majority of all farmhouses need repairs or alterations and on many farms the service buildings are so inadequate that livestock or other specialized types of farming cannot be carried on without excessive drudgery and losses.

The Farm Housing Survey showed the following needs for new buildings in the three main geographical regions. These estimates are not exact, but are the best available, and are given in some detail to show where new buildings are needed. Note that 56% of the new houses were needed on farms operated by owners.

Needs for new farm buildings in 1934

Region	Houses needed by Owners	Houses needed by Non-owners	Total houses needed	Number of farms on which other new buildings were needed
The North	136,000	73,000	209,000	810,000
The South	187,000	207,000	394,000	1,160,000
The West	70,000	24,000	94,000	200,000
Total	393,000	304,000	697,000	2,170,000

(Over)

The number of new buildings needed now is greater than when this survey was made, since repairs and new construction have not kept pace with depreciation. This is shown by a sample survey made by the Bureau of Agricultural Chemistry and Engineering in 4 states in 1937, by data from Consumer Purchases Studies of the Bureau of Home Economics in 1935-36, and by informal reports from the State agricultural colleges. It is estimated that to overcome the present shortage of decent, comfortable farmhouses and other buildings, and to provide for normal replacements during the next ten years at least 250,000 new houses and 700,000 other buildings will be needed annually. The number of buildings needing repairs, additions, and modernization is much larger. Many of the improvements cannot be made on a purchase and hire or contract basis because costs are too great in proportion to farm income.

Farm Resources in Labor and Materials to Supplement Cash.

A comprehensive program must meet the widely varying requirements of migrant workers, sharecroppers, short-term tenants and established farmers. A program to utilize farm resources of labor and material to supplement cash should be applicable to all of these situations, but may be most readily initiated in the care of the farmer who has a foothold on the land -- that is owner-operators and well established tenants. Owner-operators represent more than half of the need for new housing and no doubt much more than half of the need for other new buildings.

The plan proposed is to furnish farmers advice, instruction and a limited amount of direct assistance in planning their remodeling and new building, and in utilizing their own labor and such materials as are available on the farm for supplementing their cash resources. There is ample evidence to show that by these methods costs can be reduced, usefulness of buildings improved, and volume of construction considerably increased. Competent building specialists would be assigned to areas of 1, 2 or perhaps more counties to study the building problems, find what is being done and what needs to be done, and help farmers work out ways of making these necessary improvements. These specialists would cooperate with the county agents in educational work, and in addition would assist farmers directly in the following ways:

(a) Furnish approved plans for new buildings or prepare plans for remodeling to meet needs of particular farms; prepare lists of materials needed.

(b) Advise in selective cutting in farm woods and on the sawing, seasoning, and processing of lumber; carry on educational campaigns on the proper adjustment and operation of sawing outfits to produce accurately sawed lumber and utilize logs to best advantage.

(c) Advise regarding use of stone, gravel, earth or other materials available in the locality, and on salvaging and use of materials from old buildings.

(d) Advise regarding the use of the newer commercial building materials and equipment for heating, lighting and plumbing.

(e) Supervise building layout and construction and give instruction to unskilled workers.

(f) Work out improved types of buildings to meet the needs of the locality and to utilize materials more efficiently.

(g) Organize exchange of work and materials between farmers, perhaps including such community enterprises as "barn raisings" and "house raising bees".

(h) Cooperate with county agents in demonstrations of work accomplished.

As the program developed, project leaders would need assistance, especially in the matter of supervision and instruction. If possible this should be through local builders after training them in the reasons for departure from conventional types of building as well as in reading blueprints and utilizing unfamiliar native and commercial materials.

Financing Improvements

The plan should be flexible to suit varying cash resources or credit that may be available to hire labor or purchase materials that are not furnished by the farm. It is anticipated that purchase of such materials as roofings, millwork, finish lumber, hardware and equipment would be increased because the demonstration that self-help can make more effective use of limited cash resources will release more of these cash resources for construction. In many cases credit would not be needed, either because of cash on hand or because money could be diverted from other uses if the importance of building improvements were properly presented. If credit is required, the larger part of the established farms needing improvements can be served by local banks, F.C.A. and other established credit agencies. Less than half of all owner-operated farms are mortgaged, and this ratio probably holds for farms needing buildings. The other owners have some credit which would be increased if the value of the work exceeded the money cost; use of farm resources would enable many to make improvements who could not do so on any other basis.

Administration of Project

General direction of the work should probably be through the Extension Service cooperating with the Bureau of Agricultural Chemistry and Engineering, the Forest Service, and other interested agencies in the Department. Supervision within states should be in close cooperation with or through the agricultural colleges. Much of the supervisory force would be recruited from personnel at the colleges and universities and trained for this special work. At almost every state agricultural college there are one or more agricultural engineers with ability to organize a

state-wide program of farm building activity if given the necessary funds and assistance, including a general plan of procedure. Foresters, architects, and others who would be needed might also be recruited from the colleges. County agents who have made special study of farm buildings if relieved from their general duties and given intensive training could function efficiently as project leaders in areas of more than 1 county. There are also architects and building supervisors trained by F.S.A. and other government agencies who could be utilized in various phases of the work.

Funds should be made available for demonstrations, with the county as a unit, in all parts of the country. These demonstration counties are needed for developing procedure and would be expanded into a complete program.

Coordination with Other Programs

Aside from the R.E.A. program, the Department now deals with building problems of established farmers only by conducting research studies and by furnishing bulletins, typical building plans and advice through extension workers. The personnel engaged in such work is very small in proportion to the number of farmers to be reached, and can give little assistance with individual problems. Few of the states have even one full-time engineer on farm buildings work and in most cases it is merely secondary to several other lines of work. This proposal would be an expansion of the present program and would not conflict with it. The plan exchange services now in operation and the bulletins already prepared would be of great service in the new program.

Vocational Education. A program of this nature could utilize to advantage the services of instructors in vocational education but would also give an opportunity to apply this training in making needed improvements on farms.

Land Use Planning. The building program should keep in close touch with land use planning committees, and perhaps should be tried first in counties where land use planning has made most progress, if other conditions are favorable. The building program would pick up where planning ends.

F.C.A. and F.H.A. These agencies would be needed to assist in financing improvements.

R.E.A. The proposed program would increase interest in electrification as one of the facilities needed in building improvement. There should be no conflict.

Central Housing Committee program for cooperation of government and industry
The plan proposed for supplementing available money resources by use of farm labor and material should be welcomed by industry since it would stimulate building and release funds that would not otherwise be spent because the amounts would not make worthwhile improvements. In Arkansas where this plan has been tried on a small scale, the dealers association

cooperated with the State college in pushing the self-help program. The publicity to be given by industry should aid in arousing farmer participation in the plan.

F.S.A. The use of native materials and farm labor in rehabilitation program of F.S.A. has been instrumental in reducing the amount of loans in many cases.

U.S.H.A. The proposed program would deal chiefly with farmers who are not eligible for U.S.H.A. assistance.

Unemployment relief. Since 1929 there has been much idle time on farms. The 1937 government survey of unemployment showed a total of 248,300,000 man-days per year of farm men's time available for other employment. Most of this available idle labor was unskilled, but a large amount of unskilled labor may be used in construction of farm buildings and through training unskilled labor would become skilled and more self-reliant. Assuming that problems of materials, tools, skills, transportation and financing could be solved, the amount of farm building improvement needed could employ the unoccupied farm labor for from 3 to 5 years. Training and experience in building would be useful to the workers whether they remained on the farm permanently or eventually migrated to the cities.

Cooperation with N.Y.A. and C.C.C. should be sought for training of farm boys in building operations. Possibly N.Y.A. or W.P.A. regulations would permit furnishing some materials for improvement of buildings on low-income farms as demonstrations.

The Under-privileged, or Lower Third. While the program outlined is directed specifically at "established farms", any program which seeks to release pent-up construction on farms through use of farm labor and materials would also help the situation as regards low-income families. Use of farm labor and materials provides an opportunity for the exchange of labor for materials; cash expenditures for work done on prosperous farms can provide wages for low-income farmers; training and supervision can include the under-privileged. The justification for starting the program on established farms is that these represent the larger proportion of the prospective construction and involve fewer difficulties in financing.

Conclusion

A program is needed to utilize farm energies for putting farm buildings in sound, usable condition. Such a program would help to stabilize rural life by remedying substandard conditions that make women want to avoid the farm as a place to live, and by relieving unemployment. Competent direction in the greater utilization of farm labor and native materials to supplement money resources offers a practical program, even among farmers who have very little money.

What might be expected by encouraging building improvements if such a program could be set up is indicated by the increase in number of farms with electric power line connections. While the Farm Housing Survey indicated that only 780,000 farmers wanted power line connections in 1934, nearly 1,000,000 new connections have been made since the R.E.A. program was started. The same survey indicated the need for 700,000 new houses, and an even larger volume of repairs and other improvements to old houses, and needs for more than 2 million other new buildings.

